# Operating Permit Application Packet for

# New Class III Sources Revision of Class III Operating Permit Renewal of Class III Operating Permit



Prepared by
Division of Environmental Protection
Bureau of Air Pollution Control
Class II Permitting Branch
June 2002
Revised May 2003

### Class III Eligibility:

A source which meets the following criteria may obtain a Class III operating permit:

- Emits or has the potential to emit individually or in combination, a total of 5 tons or less per year of PM 10, NOx, SO2, VOC, and H2S;
- 2. Emits less than 1,000 pounds of lead (Pb) per year;
- 3. Does not seek an emissions limitation to avoid the requirements of 40 CFR Part 63 (National Emissions Standards for Hazardous Air Pollutants for Source Categories MACT);
- 4. Is not subject to the requirements of Title V (major source);
- 5. Is not subject to the requirement of 40 CFR Part 60 (New Source Performance Standards NSPS);
- 6. Is not subject to the requirements of 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants NESHAPS);
- 7. Is not a temporary source, as defined in NAC 445B.194;
- 8. Is not required to obtain an operating permit to comply solely with the requirements of NAC 445B.22037 for surface area disturbance: and
- 9. Is not located at or part of another stationary source.

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# State of Nevada Division of Environmental Protection Bureau of Air Pollution Control

# APPLICATION FOR CLASS III OPERATING PERMIT

Please return to: Nevada Division of Environmental Protection

Bureau of Air Pollution Control, Class II Permitting Branch

333 West Nye Lane

Carson City, Nevada 89706-0851 (775) 687-4670 FAX (775) 687-6396

### **General Information**

- This application is available from the Bureau of Air Pollution Control in a Microsoft Word file, or on the internet at http://www.ndep.nv.gov/bapc. All information required in the application may be computer generated and submitted to the Bureau on 3-1/2" disk(s) or CD(s). In addition, one printed copy must be submitted.
- All information required by the "General Company Information" and by the relevant forms in Appendices 1 t hrough 6 must be completed.
- The application filing fee required by NAC 445B.327 must be submitted with the completed application. The fee for a new Class III Operating Permit is \$300. The fee for a modification or revision of a Class III Operating Permit is \$200. The fee for renewal of a Class III Operating Permit is \$250. Checks must be made payable to: Nevada State Treasurer, Environmental Protection.
- This application packet shall be used for new Class III sources, revisions to Class III Operating Permits, and renewals of Class III Operating Permits. This application packet is <u>not</u> for use for an administrative amendment, a general permit, a stand-alone surface area disturbance permit, nor for a request for change of location approval permit for a temporary source.
- Separate application forms for specific types of emission units are provided in Appendix 1. They include application forms
  for: (1) industrial processes, (2) combustion equipment, (3) storage silos, (4) liquid storage tanks and (5) surface area
  disturbances.
- An application for a Class III Operating Permit must be signed by a responsible official, as defined in NAC 445B.156. The
  certification/signature page is contained in Appendix 6.
- All items in the application must be addressed. If an item does not apply "N/A" or similar notation must be entered in the appropriate blank. All other information must be provided. Incomplete applications will be returned to the responsible official within 10 working days of receipt of the application packet.
- A <u>complete</u> application for renewal of a Class III Operating Permit must be submitted at least 30 calendar days before the
  expiration date of the current permit. The Bureau of Air Pollution Control suggests that the application be submitted well in
  advance of the 30 day deadline to ensure the application is complete.
- Assistance in completing the application is available from the Business Environmental Program, University of Nevada, Reno, at (775) 689-6678 or (800) 882-3233 (toll-free).

# Application for Class III Air Quality Operating Permit



### **GENERAL COMPANY INFORMATION**

All applicants shall complete each item or explain in the space provided why no information is needed. Please specify "N/A" (Not Applicable) if necessary. The application will be returned to the applicant if it is deemed incomplete.

(Name)		
(Address)		
(City)	(State)	(Zip Code)
Owner's Name and Ado	dress [NAC 445B.295.1]:	
(Name)		
(Address)		
(City)	(State)	(Zip Code)
(Address)		
(City)	(State)	(Zip Code)
Physical Location of S 4 miles south of I-80 at		: (if no physical address, describe location
Township(s)	Range(s)	Section(s)
Plant Manager or Othe	r Appropriate Contact [NAC 445B.2	295.1]:
(Name)		(Title)
(Address)		
(City)	(State)	(Zip Code)

### GENERAL COMPANY INFORMATION (CONTINUED)

(Name)	(T	itle)
(Address)		
(City)	(State)	(Zip Code)
(Telephone #)	(FAX #)	(E-mail address)
	der the operating permit will be kept at 195.7].	a location other than the source, s
If records required und location [NAC 445B.2 (Name)		a location other than the source, s
If records required unclocation [NAC 445B.2		a location other than the source, s
If records required und location [NAC 445B.2 (Name)		(Zip Code)

Please remove the cover page, Table of Contents and General Information page and all Attachments of the application packet. Submit the remainder of the application packet as your formal application. This should consist of, at a minimum, the Class III Application cover page, the General Company Information, and Appendices 1 through 6.

# Appendix 1

# EMISSION UNITS APPLICATION FORMS

(Industrial Process/Combustion Equipment/Storage Silo/ Liquid Storage Tank/ Surface Area Disturbance)

### Instructions

PLEASE RESPOND SEPARATELY TO ITEMS 1 through 5 FOR <u>EACH</u> EMISSION UNIT, as appropriate. Each emission unit at the stationary source must be identified by completion of the appropriate application form contained in this appendix. Forms may be duplicated as needed. Complete all applicable attachments (**Appendix 1**) included in this application package [NAC 445B.295].

- Section 1. Equipment Description: Provide information about the Standard Industrial Classification Code (SIC), describe the processes and products by SIC, including any associated with an alternative operating scenario identified in this application, model number, manufacture date, dimensions and UTM coordinates. [NAC 445B.295.3]
- Section 2. <u>Design Rate/Operating Parameters</u>: Describe all production rates, operating schedules and materials used in the process. [NAC 445B.295.3]
- Section 3. Fuel Usage: Describe all fuels and fuel usage. [NAC 445B.295.3]
- Section 4. <u>Pollution Control Equipment/Exhaust Stack Parameters</u>: Identify and describe all air pollution control equipment. [NAC 445B.295.4]
- Section 5. Requested Emission Limits: Provide the requested emission limits for each emission unit. Include emission rates of all regulated air pollutants that are subject to an emissions limitation pursuant to an applicable requirement. The emission rates must be described in pounds per hour and tons per year and in such terms as are necessary to establish compliance using the applicable standard reference test method. [NAC 445B.295.8, NAC 445B.3363(d)]

Alternative Operating Scenarios: Complete a separate application form for each emission unit having an alternative operating scenario. (A common example of an alternative operating scenario is a steam boiler that utilizes natural gas as the primary fuel, but may combust diesel fuel as an alternate fuel source). Please check the box in the upper right hand corner of each application form for emission units requesting an alternative operating scenario. Additionally, for each emission unit application form requesting an alternative operating scenario:

- 1. Define each alternative operating scenario [NAC 445B.296.1(a)];
- 2. Demonstrate that each scenario will comply with each applicable requirement or relevant requirement of NAC 445B.001 to 445B.3497, inclusive [NAC 445B.296.1(b)];
- 3. Detail proposed conditions, including monitoring and recordkeeping for each alternative operating scenario, which will ensure compliance. Contemporaneous log entries must be provided every time the source changes from one scenario to another [NAC 445B.296.1(c)].
- 4. Provide emission rates and detailed calculations for each alternative operating scenario in Appendix 4 [NAC 445B.296.1(d)].

### **Surface Area Disturbance**

Complete a Surface Area Disturbance application form for any land disturbances that equal or exceed 5 acres. (Note: The submittal of a dust control plan is required for each surface area disturbance, as specified in Appendix 5. Please provide the dust control plan in Appendix 5.)

# INDUSTRIAL PROCESS APPLICATION FORM CLASS III OPERATING PERMIT

☐ Check here if this is an alternative operating scenario

**Section 1 - Equipment Description** 

Type of equipment							
Standard Industrial Classification (SIC) Code							
Manufacturer of equipment							
Model number*Equip. number							
Date equipment manufactured:							
Please check one:   Temporary (At the same location for less than 12 months)  Stationary (At the same location for more than 12 months)							
For crushers: size output setting, check one: $\square$ Primary ( $\geq$ 4") $\square$ Secondary ( $<$ 4" but $\geq$ 1") $\square$ Tertiary ( $<$ 1")							
Please check if portable: Portable (transportable or movable within the confines of the stationary source)							
UTM Coordinates meters N; meters E; Zone 11 (Please specify NAD 27 □ or NAD 83 □)							
Basic equipment dimensions (feet): LWH							
equipment number is the facility's own numbering system for this piece of equipment.							
on 2 - Design Rate/Operating Parameters							
Maximum design capacity (tons per hour)							
Requested operating rate (tons per hour)*							
Requested operating time: (time of day)*to							
Hours per day Days per year Hours per year							
Batch load or charge weight (tons) (if applicable)							
Total hours required to process batch or charge (if applicable)							
Maximum operating rate (tons per year)							
Requested operating rate (tons per year)*							
Type of material processed							
Minimum moisture content							

<sup>\*</sup>Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

## **INDUSTRIAL PROCESS APPLICATION FORM CONTINUED**

Section 3 - Fuel Usage (This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify					
Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

<sup>\*</sup>Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

## INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

# Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section $\underline{\textit{must}}$ be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low  $NO_x$  burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 2)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate: Actual cubic feet per minute		
Gas volume flow rate: Dry standard cubic feet per minute		

-Complete for Emissions <u>not</u> exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control		
(See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.

**Note 1**: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

# INDUSTRIAL PROCESS APPLICATION FORM CONTINUED

**Section 5 - Requested Emission Limits** 

Pollutant	Potential to Emit (pounds/hour)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			
Particulates as PM <sub>10</sub>			
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant <sup>1</sup> )			
Other Regulated Pollutants (Specify <sup>2</sup> )			

<sup>&</sup>lt;sup>1</sup>A list of Hazardous Air Pollutants is contained in Attachment 4.

<sup>&</sup>lt;sup>2</sup>Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

# COMBUSTION EQUIPMENT APPLICATION FORM CLASS III OPERATING PERMIT

 $\Box$  Check here if this is an alternative operating scenario

**Section 1 - Equipment Description** a. Type of equipment b. Standard Industrial Classification (SIC) Code Manufacturer of equipment c. Model number Serial number \*Equip. number d. Date equipment manufactured: e. Temporary (At the same location for less than 12 months) f. Please check one: Stationary (At the same location for more than 12 months) Please check if portable: 

Portable (transportable or movable within the confines of the g. stationary source) meters N; meters E; Zone 11 UTM Coordinates h. (Please specify NAD 27 or NAD 83 ) Basic equipment dimensions (feet): L\_\_\_\_\_\_W\_\_\_H\_\_\_\_ i. \* The equipment number is the facility's own numbering system for this piece of equipment. Section 2 - Design Rate/Operating Parameters Maximum design horsepower OUTPUT (horsepower per hour) a. (Please provide for internal combustion engines only) b. Maximum design heat INPUT (million Btu per hour) (Please provide for all combustion units except for internal combustion engines) \*Requested operating time: time of day \_\_\_\_\_\_ to \_\_\_\_\_ c.

\*Note: Please complete if other than the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Hours per day \_\_\_\_\_ Days per year \_\_\_\_\_ Hours per year \_\_\_\_\_

# COMBUSTION EQUIPMENT APPLICATION FORM CONTINUED

### **Section 3 - Fuel Usage**

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

	A L 1 D	,	A -1- C t t	C1£	Т
Type of Fuel	Amount Used Per	Heat Content	Ash Content	Sulfur	Trace
	Hour	(specify in Btu's)	(% by	Content	Elements
			weight)	( % by	(% by
			<i>U</i> ,	weight)	weight)
				weight)	weight)
Oil- Specify					
Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of	Amount	Heat	Ash	Sulfur	Trace	Percent	Percent	Percent
Fuel	Used	Content	Content	Content	Elements	moisture	volatile	fixed
	Per	(specify	(% by	(% by	(% by		matter	carbon
	Hour	in Btus)	weight)	weight)	weight)			
	(tons)							
Coal -								
Specify								
Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

<sup>\*</sup>Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

# COMBUSTION EQUIPMENT APPLICATION FORM CONTINUED

# Section 4 - Pollution Control Equipment/Exhaust Stack Parameters. This section $\underline{\textit{must}}$ be completed.

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low  $NO_x$  burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 2)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate: Actual cubic feet per minute		
Gas volume flow rate: Dry standard cubic feet per minute		

**Note 1**: (Specify "uncontrolled" if no pollution control device is installed).

**Note 2**: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

# COMBUSTION EQUIPMENT APPLICATION FORM CONTINUED

**Section 5 - Requested Emission Limits** 

Pollutant	Potential to Emit (pounds/hour)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Partic ulate Matter (PM)			
Particulates as PM <sub>10</sub>			
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant <sup>1</sup> )			
Other Regulated Pollutants (Specify <sup>2</sup> )			

A list of Hazardous Air Pollutants is contained in Attachment 4.

<sup>&</sup>lt;sup>2</sup>Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive

# STORAGE SILO APPLICATION FORM CLASS III OPERATING PERMIT

☐ Check here if this is an alternative operating scenario

Section	1 - Equipment Description
a.	Type of equipment
b.	Standard Industrial Classification (SIC) Code
c.	Manufacturer of equipment
d.	Model number*Equip. number
e.	Date equipment manufactured:
f.	Please check one:   Temporary (At the same location for less than 12 months)  Stationary (At the same location for more than 12 months)
g.	Please check if portable:   Portable (transportable or movable within the confines of the stationary source)
h.	UTM Coordinates meters N; meters E; Zone 11 (Please specify NAD 27 $\square$ or NAD 83 $\square$ )
i.	Basic equipment dimensions (feet): L W H
* The eq	uipment number is the facility's own numbering system for this piece of equipment.
Section	2 - Design Rate/Operating Parameters
a.	Maximum design storage capacity (tons)
b.	Maximum loading rate (tons per hour)Loading time (hours to fill)
c.	*Requested loading rate (tons per hour):
	*Hours per day Days per year Hours per year
d.	Maximum unloading rate (tons per hour)
e.	Method of unloading (screw auger, etc.)
f.	Continuous or batch discharge
g.	Requested unloading rate (tons per hour)
	Requested unloading rate (tons per year)
h.	Requested unloading time: Hours per day to to
	Hours per day Days per year Hours per year
i.	Material type processed (lime, cement, flyash, etc.)

\*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

### Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process: (baghouse, wet scrubber, cyclone, no control, etc.)

, , ,	Control #1	Control #2
Type of Control: (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 2)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate:		
Actual cubic feet per minute		
Gas volume flow rate:		
Dry standard cubic feet per minute		

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process: (baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 2)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate:		
Actual cubic feet per minute		
Gas volume flow rate:		
Dry standard cubic feet per minute		

Note 1: Specify "uncontrolled" if no pollution control device is installed).

Note 2: Manufacture's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

### **Section 4 - Pollution Control Equipment (continued)**

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 2)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate in cubic feet/minute (actual flow rate)		

Note 1: Specify "uncontrolled" if no pollution control device is installed).

Note 2: Manufacture's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

Section 5 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			
Particulates as PM <sub>10</sub>			
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant¹)			
Other Regulated Pollutants (Specify <sup>2</sup> )			

<sup>&</sup>lt;sup>1</sup>A list of Hazardous Air Pollutants is contained in Attachment 4.

<sup>&</sup>lt;sup>2</sup>Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Section 5 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			
Particulates as PM <sub>10</sub>			
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant <sup>1</sup> )			
Other Regulated Pollutants (Specify <sup>2</sup> )			
A list of Hazardous Air Pollut	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	

A list of Hazardous Air Pollutants is contained in Attachment 4.

Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

# LIQUID STORAGE TANK APPLICATION FORM CLASS III OPERATING PERMIT

☐ Check here if this is an alternative operating scenario

**Section 1 - Equipment Description** 

a.	Manufacturer of tank				
b.	SIC Code c. Liquid St	ored			
d.	Date of installation				
e.	Tank Dimensions:				
	Shell height (feet)	Shell diameter (feet)			
	Liquid height (feet)	Average liquid height (feet)			
	Volume (gallons)	_			
f.	Paint characteristics: Shell color/shade (please check one)	□ White/white □ Aluminum/diffuse □ Gray/medium	☐ Aluminum/specular ☐ Gray/light ☐ Red/primer		
	Shell condition	□ Oray/medium	□ Red/printer		
g.	Roof color/shade (please check one)	□ White/white □ Aluminum/diffuse □ Gray/medium	☐ Aluminum/specular ☐ Gray/light ☐ Red/primer		
	Roof condition	= 51 <b>u</b> j/moulum	_ 1.00/ p01		
h.	Roof characteristics:				
	Type (please check one):				
	□Cone □Dome □External floati	ing roof □ Internal floating room	f		
	For cone or dome roof, specify height (	feet)			
	For cone roof, specify slope (ft/ft)		_		
	For dome roof, specify radius (feet)				
	Tank construction: □ welded □ rive	eted			
	Primary rim seal: □vapor-mounted □	☐ liquid-mounted ☐ mechanical	shoe		
	Secondary seal: □ weather shield □ r	im-mounted □none			
	Roof type: □pontoon □double deck				
	Roof fittings: □ access hatch □ g	gauge-float well □gauge-hatch	/sample well		
	□rim vent □roof	drains □roof leg □unslotted g	guide pole wells		
	□ slotted guidepole	/sample wells □ vacuum break	er		
j.	For internal floating roof, please comple	ete the following:			
	Primary seal: □ resilient foam-filled	□ wiper seals □ other (please	e specify)		
	Secondary seal: □resilient foam-filled	d □wiper seals □other (pl	ease specify)		
	Roof fittings: □access hatch □gaug	e-float well □ gauge-hatch/sam	nple well		
	□rim vent □roof d	rains □roof leg			
	□unslotted guide pole w	rells □ slotted guidepole/sampl	le wells		
	□ vacuum breaker □ co	olumn wells (# of columns	)		
	□ Ladder wells □ stub	drains			
k.	True vapor pressure of liquid (psia) l. Reid vapor pressure of liquid (psi)				
m.	UTM Coordinates meters N; meters E; Zone 11 (Please specify NAD 27 □ or NAD 83 □)				

# LIQUID STORAGE TANK APPLICATION FORM CONTINUED

<b>Section 2</b>	-	<b>Operating</b>	<b>Parameters</b>
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a.	Maximum throughput (gallons per year)
b.	Method of filling (submerged fill)

### Section 3 - Reserved

### Section 4 - Pollution Control Equipment (this section <u>must</u> be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, internal floating roof, no control, etc.)

	Control #1	Control #2
Type of Control:		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate: actual cubic feet per minute		
Gas volume flow rate: dry standard cubic feet per minute		

**Note 1**: (Specify "uncontrolled" if no pollution control device is installed).

**Note 2**: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

# LIQUID STORAGE TANK APPLICATION FORM CONTINUED

**Section 5 - Requested Emission Limits** 

Pollutant	Potential to Emit (pounds/hour)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			
Particulates as PM <sub>10</sub>			
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant <sup>1</sup> )			
Other Regulated Pollutants (Specify <sup>2</sup> )			

<sup>&</sup>lt;sup>1</sup>A list of Hazardous Air Pollutants is contained in Appendix 4.

<sup>&</sup>lt;sup>2</sup>Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

## SURFACE AREA DISTURBANCE APPLICATION FORM CLASS III OPERATING PERMIT

1. Project Name			
2. Surface Area Disturbance	Surface Area Disturbance Location:		
Overall disturbance location description:			
Township	; Range	; Section(s)	
Township	; Range	; Section(s)	
Township	; Range	; Section(s)	
Township	; Range	; Section(s)	
Township	; Range	; Section(s)	
Township	; Range	; Section(s)	
Township	; Range	; Section(s)	
Township	; Range	; Section(s)	
3. Indicate the total number of	of acres to be disturbed for the	project	

- 4. Nevada Administrative Code 445B.22037 requires fugitive dust to be controlled (regardless of the size or amount of acreage disturbed), and requires an ongoing program, using best practical methods, to prevent particulate matter from becoming airborne. All activities which have the potential to adversely affect the local air quality must implement all appropriate measures to limit controllable emissions. Appropriate measures for dust control may consist of a phased approach to acreage disturbance rather than disturbing the entire area all at once; using wet suppression through such application methods as water trucks or water sprays systems to control wind blown dust; the application of soil binding agents or chemical surfactant to roadways and areas of disturbed soil; as well as the use of wind-break or wind-limiting fencing designed to limit wind erosion of soils.
- 5. <u>Dust Control Plan</u> (please visit http://ndep.nv.gov/bapc for additional information regarding dust control plans).
  - a. For Pahrump Valley, please include a dust control plan in Appendix 6 if the total number of acres to be disturbed listed in 3 above equals or exceeds 5 acres.
  - b. Please include a dust control plan in Appendix 6 if the total number of acres to be disturbed in number 3 above equals or exceeds 20 acres (except for Pahrump Valley in a above).

The dust control measures discussed in 4 above should be considered in the preparation of the required dust control plan. The acceptance of the dust control plan by the Bureau of Air Quality does not limit the permit holder's need to control fugitive dust from the disturbance and its related activities, nor from putting into effect an ongoing program for using the best practical methods of dust control

# Appendix 2

# INSIGNIFICANT ACTIVITY INFORMATION FORM

### Instructions

Attachment 1 contains the Approved List of Insignificant Activities. Attachment 3 contains the List of Trivial Activities. Trivial activities are exempted from consideration. PLEASE RESPOND ON THE INSIGNIFICANT EMISSION UNITS INFORMATION FORM TO SECTIONS 1 THROUGH 4, FOR EACH INSIGNIFICANT EMISSION UNIT [NAC 445B.295.8].

- Section 1. List all insignificant activities that are exempt pursuant to NAC 445B.288.2(a) through (h), and list the appropriate section that provides for the exemption. Provide information sufficient to show that the exemption applies (a copy of NAC 445B.288.2 is provided in Attachment 2).
- Section 2. List all insignificant activities that are exempted because they are on the list approved and maintained by the Director pursuant to NAC 445B.288.4. Provide information sufficient to show that the exemption applies.
- Section 3. List all proposed insignificant activities that are not already contained in the list in Attachment 1. Provide sufficient description of activities, and all emission calculations and references. The list of proposed insignificant activities must also be submitted, under separate cover, to the Director for his review and approval.
- This section must be completed if the potential to emit for all other emitting activities associated with the stationary source exceeds 60 tons per year for any individual regulated air pollutant. If the potential to emit is below the 60 ton per year threshold, only sections 1 through 3 of this form must be completed (-lease attach additional sheets as necessary). If the potential to emit exceeds the 60 tons per year threshold, emissions calculations to determine maximum uncontrolled emissions for each insignificant activity must be provided and included in Appendix 4. Calculate the maximum uncontrolled emissions for insignificant activities listed under Sections 1 through 3, if the . Emissions calculations must be based on the maximum design throughput, maximum design production rate, maximum design heat input rate value, no controls, and 8760 hours per year of operation, unless otherwise indicated in NAC 445B.288.2 or on the list of approved insignificant activities provided in Attachment 1.

Section 1 - List All Emission Units that are Insignificant Activities Pursuant to NAC 445B.288.2(a) through (h) (see Attachment 2 for regulation).

Emission Unit	Exemption Regulation (Example - NAC 445B.288.2(b))	Reason Exemption Applies

Section 2 - List All Emission Units Proposed as Insignificant Activities Pursuant to List Approved by the Director (see Attachment 1 - List of Approved Insignificant Activities)

Emission Unit	Reason Exemption Applies

Section 3 - List All Emission Units Proposed as Insignificant Activities and Not Otherwise Listed in Section 1 or Section 2 (NAC 445B.288.4). Proposed insignificant activities from this Section must be submitted, under separate cover, to the Director for his approval. The submittal must include a sufficient description of the emission unit(s), all emissions calculations, and references.

Emission Unit

### Section 4 - Emissions Calculations - Insignificant Emission Units/Activities

Calculate the maximum uncontrolled emissions for insignificant activities listed under Sections 1 through 3. Emissions calculations must be based on the maximum design throughput, maximum design production rate, maximum design heat input rate value, no controls, and 8760 hours per year of operation, unless otherwise indicated in NAC 445B.288.2 or on the list of approved insignificant activities provided in Attachment 1. No consideration for emissions reduction from pollution controls or limits on the hours of operation or other operational constraints may be allowed unless otherwise approved by the Director or as indicated in NAC 445B.288.3 or on the list provided in Attachment 1.

# Appendix 3

# FACILITY-WIDE POTENTIAL TO EMIT TABLES

Provide the stationary source's total emissions by completing Table 1 and Table 2 of Appendix 4. (Note: Table1must include the insignificant activity emissions identified in Table 2.) [NAC 445B.295.8].

# TABLE 1

# FACILITY-WIDE (STATIONARY SOURCE) POTENTIAL TO EMIT POUNDS/HOUR AND TONS/YEAR

Pollutant	Potential to Emit (pounds/hour)	Potential to Emit (tons/year)
Total Particulate Matter (PM) <sup>1</sup>		
Particulates as PM <sub>10</sub> <sup>1</sup>		
Sulfur Dioxide <sup>1</sup>		
Carbon Monoxide <sup>1</sup>		
Oxides of Nitrogen <sup>1</sup>		
Volatile Organic Compounds <sup>1</sup>		
Lead <sup>2</sup>		
Hazardous Air Pollutants		
(Specify Each Pollutant)		
Other Regulated		
Pollutants (Specify)		

Note 1: Emissions total from pollutants cannot exceed 5.0 tons per year.

Note 2: Emissions total cannot exceed 1,000 pounds per year.

# TABLE 2

# INSIGNIFICANT ACTIVITIES POTENTIAL TO EMIT POUNDS/HOUR AND TONS/YEAR

Insignificant Activity	Pollutant	Potential to Emit (pounds/hour)	Potential to Emit (tons/year)

# Appendix 4

# DETAILED EMISSIONS CALCULATIONS

### **Please Attach Emission Calculations**

### Instructions

- 1. Provide descriptions of all emissions, and emission rates of regulated air pollutants (in pounds per hour and tons per year) from each emission unit. [NAC 445B.295.8]
- 2. Provide all supporting calculations for the emission rates specified in 1 above. This information shall be provided for each emission unit. (*Note: A listing of default emission control efficiency values is contained in Attachment 4.*) [NAC 445B.295.8]
- 3. Provide all emissions of regulated air pollutants (in pounds per hour and tons per year) from <u>each</u> <u>insignificant activity</u> (see Section 4 of Appendix 2 to determine if these calculations are required), and calculations and supporting documentation. The emissions and supporting calculations should reflect all insignificant activities listed in Appendix 2. [NAC 445B.295.8]

# Appendix 5

# NARRATIVE DESCRIPTION

# PROCESS FLOW DIAGRAM

**PLOT PLAN** 

**MAP** 

**DUST CONTROL PLAN** 

### Instructions

### This Appendix must include the following:

- 1. A narrative description of the entire process. The narrative must include descriptions of all emissions of any regulated air pollutants from all emission units. [NAC 445B.295.8]
- 2. A detailed process flow diagram of all processes indicating emissions control application points, throughput rate/design heat input rate value, and emission unit identification numbers. [NAC 445B.295.8]
- 3. A plot plan of the entire source, drawn to scale (include scale). The plot plan shall include the location of all emission units (clearly labeled), emission release points (stack and/or emission point locations, clearly labeled), the fence line, and the property boundary. [NAC 445B.295.8]
- 4. A USGS 7-1/2" or 15" map or other topographic map (with topographic lines clearly visible) indicating the following [NAC 445B.295.8]:
  - a. Exact location of entire source (also indicate all areas of surface disturbance).
  - b. Property boundary.
  - c. Location of fence or other physical barrier around source (NOTE: This is required.)
  - d. Scale of map.
  - e. UTMs, if other than a USGS 7-1/2" or 15" map is submitted.
  - f. Elevation contours and contour intervals, and contour values, clearly visible and in sufficient detail to determine elevations.
- 5. For surface area disturbance that will exceed 20 acres, provide a dust control plan, with the exception of Pahrump Valley. In Pahrump Valley, for surface area disturbance of **5 acres or more**, please provide a dust control plan. [NAC 445B.295.8]

# Appendix 6

# APPLICATION CERTIFICATION

Please complete the certification checklist for all forms and information provided in your application submittal. The responsible official must sign and date the application certification found in Appendix 9. If the application is signed by a person other than the responsible official, as defined in NAC 445B.156, the application will be returned as incomplete.

Note: According to NAC 445B.156, Responsible Official means:

- 1. For a corporation:
  - (a) A president;
  - (b) A vice president in charge of a principal business function;
  - (c) A secretary;
  - (d) A treasurer; or
  - (e) An authorized representative of such a person who is responsible for the overall operation of the facility and who is designated in writing by the officer of the corporation and approved in advance by the director.
- 2. For a partnership or sole proprietorship: a general partner or the proprietor, respectively.
- 3. For a municipality or a state, federal or other public agency: a ranking elected official or a principal executive officer, including, for a federal agency, a chief executive officer who has responsibility for the overall operations of a principal geographic unit of the agency.
- 4. For an affected source: the designated representative or his alternate, as defined in 42 U.S. C. § 7651 a (26).

# **APPLICATION CERTIFICATION**

Certific (Please ch	ation of application content consisting of the following: neck each of the appropriate boxes to indicate the information provided in your application submittal)	
_	Company Information al Company Information Form	
☐ Industr☐ Combu☐ Storage☐ Liquid	Unit Application Forms (Appendix 1) rial Process Application Form(s) ustion Equipment Application Form(s) e Silos Application Form(s) Storage Tank Application Form(s) e Area Disturbance Form(s)	
	ant Emissions Unit Information (Appendix 2) ficant Emissions Unit Information Form(s)	
Table	Vide Potential To Emit Tables (Appendix 3)  1 - Facility-Wide Potential To Emit  2 - Insignificant Activities Potential To Emit	
_	Emissions Calculations (Appendix 4) and Emissions Calculations Provided	
Proces Flow D Plot Pl Map Pr	farrative, Process Flow Diagram, Plot Plan, Map, Dust Control Plan (Appendix 5) s Narrative Provided Diagram Provided an Provided rovided control Plan Provided	
	on Certification (Appendix 6) ation Certification	
PLEASE THE AP	NOTE THE FOLLOWING REQUIREMENTS WHICH APPLY TO PERMIT APPLICANTS DURING PLICATION PROCESS:	
Α.	A permit applicant must submit supplementary facts or corrected information upon discovery [NAC 445B.297.1(b)].	
В.	A permit applicant is required to provide any additional information which the Director requests in writing within the time specified in the Director's request [NAC 445B.297.1(c)].	
C.	Submission of fraudulent data or other information may result in prosecution for an alleged criminal offense (NRS 445B.470).	
	ICATION: I certify that, based on information and belief formed after reasonable inquiry, the statements I in this application are true, accurate and complete.	
	Signature of Responsible Official	
	Print or Type Name and Title	
	Date	

# **ATTACHMENT 1**

# LIST OF APPROVED INSIGNIFICANT ACTIVITIES

NAC 445B.288.2

### **Approved Insignificant Activities**

The following insignificant activities have been approved by the director in accordance with NAC 445B.288.4:

- ♦ Crematory Incinerators processing <175 tons per year (1/24/96)
- ♦ Autoclave re-bricking (3/1/96)
- ♦ Prill silos <100,000 tons/year (3/1/96)
- ♦ Parts cleaners cold cleaning only (3/1/96)
- ♦ Storage tanks, as follows: (3/1/96)

Emission Unit	Tank size (gallons)	and	Vapor Pressure (PSIA)
non-HAP VIL*	<40,000		< 0.60
non HAP VIL	<200,000		< 0.13
HAP VIL	<40,000		< 0.15
HAP VIL	<200,000		< 0.03
Liquid NaCN	any size		N/A
*VIL - volatile inorganic liquid			

- ♦ Portable screening plant, processing  $\leq$  100,000 tons of metallic mineral, in less than 6 months, with  $\geq$  4% moisture content (3/5/96)
- ♦ Carbon strip/electrowinning circuit, with a total liquid surface area of less than 610 square feet and a solution flow rate less than 400 gallons per minute (6/12/96)
- ♦ Mine analytical laboratory fume hoods (6/12/96)
- ♦ Mine metallurgical laboratory fume hoods (6/12/96)
- ♦ Landfarming of not more than 270,000 tons per year of diesel-based hydrocarbon contaminated soil, with a concentration of less than 50,000 ppm Total Petroleum Hydrocarbons. (6/12/96)
- ♦ Landfarming of not more than 338 tons per year of gasoline-based hydrocarbon contaminated soil, with a concentration of less than 50,000 ppm Total Petroleum Hydrocarbons. (6/12/96)
- ♦ Sand washing operations, consisting of material unloading by continuous drop feed on a feed conveyor, double deck screen/wash with two feed conveyors to the materials stockpile, processing the following: (1) less than 765,000 tons per year at the following moisture contents: material unloading and conveyor belt at least 1.5% moisture, screen and tow conveyor belts at least 7.0% moisture; (2) less than 805,000 tons per year at the following moisture contents: material unloading and conveyor belt at least 1.5% moisture, screen and tow conveyor belts at least 7.5% mois ture; (3) less than 844,000 tons per year at the following moisture contents: material unloading and conveyor belt at least 1.5% moisture, screen and two conveyor belts at least 8.5% moisture. (6/12/96)
- ◆ Draining of 155mm M687 Projectile OPA (Isopropyl Alcohol/Isopropylamine) canisters, containing 71.7 weight percent isopropyl alcohol and 28.3 weight percent isopropylamine, not to exceed 2,400 canisters per week. (7/2/97)
- ♦ Lime silo, located at Newmont Gold Company's Rain Project, 127 ton storage capacity, equipped with silo discharge auger which is physically limited to 1.50 tons per hour of discharge of lime (13,140 tons per year). (7/13/98)
- ♦ Chemistry laboratory at the HWAD Main Base. (8/24/98)

- ♦ Transloading facility for lime, consisting of railcar transfer to screw conveyor, screw conveyor to belt conveyor, belt conveyor to truck, transferring 80 tons per hour, for Continental Lime Inc.'s Dunphy Transloading facility. (1/13/99)
- Newmont Gold Company Shotcrete Plant described as follows: two (2) cement silo augers, cement metering bin, mix box containing washed pea gravel and sand, and auger to shotcrete transport truck. Shotcrete plant throughput is physically limited by shotcrete discharge auger, at 25.6 tons per hour (19.84 tons per hour gravel/sand and 5.76 tons per hour cement). (4/27/99) (revised 2/20/01)
- ♦ SmartAsh 100 disposal unit, specified as follows: 55 gallon steel open head drum, stainless steel lid, plated tubular steel frame, 2 blowers, for burning absorbent materials, paper waste, wood by-products, rags, used filters, waste oil, and other **non-hazardous** waste at a rate of 50 pounds per hour. (5/7/99)
- One evaporator/Condenser located at Quebecor Printing Nevada's Fernley facility with a maximum design capacity of 2000 gallons per day. (11/30/99)
- ♦ Transloading facility for flyash, consisting of railcar transfer to screw conveyor, screw conveyor to belt conveyor, belt conveyor to truck, transferring 80 tons per hour, for Continental Lime Inc.'s Dunphy Transloading facility. (12/1/99)
- ♦ Battery decasing, decanning, washing and waste water treatment operations, located at NAVSEA -HWAD. Combined mercury-zinc, mercury -cadmium and silver-zinc battery process rate not to exceed 1000 batteries per hour and 260,000 batteries per year. Only one battery type may be processed at any given time. Mercury content not to exceed 0.552 pounds per battery. Total uncontrolled mercury emissions from the battery decasing, decanning, washing and wastewater treatment operations not to exceed 0.1 pounds per hour and 26 pounds per year. (5/15/2000)
- ♦ Crawford Animal Crematories Model CB400 and a Model 500P to be located at the Silver Hills Vet Hospital in Carson City. The crematories are to be used for the destruction of animal carcasses only. (12/12/00)
- ♦ MCI WorldCom Six Generac 96A04605-S, 60kW, diesel generators One each at the following locations: Argenta, Lander County; Carlin, Elko County; Clover Valley, Elko County; Shafter, Elko County; Stonehouse, Humboldt County. (2/20/01)
- ♦ Newmont Gold Company's Portable Cement Mixing Plant consisting of a mix tank for generating cement slurry, and an auger with a maximum throughput of 700 pounds of cement per minute. (2/20/01)
- ♦ Barrick Goldstrike Mines, Inc., Pilot Scale Fluidized Bed Roaster w/ Integral Quenching Eductor.

  Maximum material throughput of 45 pounds per hour with a roaster operating temperature range between 700° and 1200° F. (4/3/01)
- ♦ Industrial Metals & Mining, LLC's ore processing operation located in Silver Springs, Nevada consisting of weigh and assaying of incoming ore, ore roasting, ore sizing, and ore loading to liquid process solution system. (8/10/01)
- Oglebay Norton Industrial Sands, Inc.'s portable sand transloading conveyor. (10/10/01)
- ♦ Paramount Nevada Asphalt Company's emulsified asphalt plant. (5/22/02)
- ♦ Crawford Animal Crematories, Model C500P natural-gas fired crematory, 75 pounds/hour capacity, located at Great Basin Pet Crematory in Elko. The crematory is to be used for the destruction of animal carcasses only. (10/28/02)
- ♦ Bently Nevada LLC, screen printing operation, manual, processing <50 lb/hr. (12/18/02)
- ♦ RMC Nevada, Inc., portable aggregate stacking conveyor which will convey 50 thousand tons of washed sand with approximately 8% moisture into railcars. The conveyor is powered by a 115 h.p. engine. (1/16/03)

•	Explosive ordnance training for crime and terrorist scene investigators (post-blast analysis) - An inoperable vehicle (battery and fluids removed) will be destroyed by explosion of 500 pounds of ammonium nitrate per event, not to exceed eight (8) events per 12 month rolling period. Activity will be conducted on a secure range closed to public access on NAS Fallon. (6/25/03)					

## ATTACHMENT 2 NAC 445B.288

## NAC 445B.288 Operating permits: Exemptions from require ments; insignificant activities. (NRS 445B.210, 445B.300)

- 1. The following categories of sources are not required to obtain an operating permit:
- (a) A source that would otherwise be required to obtain an operating permit solely because it is subject to 40 C.F.R. Part 60, Subpart AAA, Standards of Performance for New Residential Wood Heaters.
- (b) A source that would otherwise be required to obtain an operating permit solely because it is subject to 40 C.F.R. Part 61, Subpart M, National Emission Standard for Asbestos, section 61.145.
- (c) Agricultural equipment used in the normal operation of a farm, other than agricultural equipment which is classified as, or located at, a source for which a permit is required under Title V of the Act or which is subject to any standard set forth in 40 C.F.R. Part 60 or 61.
- 2. The following emission units are considered to be insignificant activities unless the emission unit is otherwise subject to another specific applicable requirement, including, without limitation, any requirement or standard set forth in 40 C.F.R. Part 60, 61 or 63:
- (a) Any equipment or other contrivance used exclusively for the processing of food for human consumption.
  - (b) An incinerator which has a rated burning capacity that is less than 25 pounds per hour.
- (c) An emission unit that has a maximum allowable throughput or batch load rate of less than 50 pounds per hour, unless the emission unit directly emits, or has the potential to emit, a hazardous air pollutant.
- (d) A storage container for petroleum liquid, or a storage facility for volatile organic liquid, that has a capacity of less than 40,000 gallons.
- (e) Except as otherwise provided in paragraphs (f), (g) and (h), air-conditioning equipment or fuel-burning equipment that, individually, has a rating which is:
  - (1) Less than 4,000,000 Btu's per hour; or
- (2) Equal to or greater than 4,000,000 Btu's per hour if the equipment operates less than 100 hours per calendar year.
  - (f) A portable internal combustion engine that has a rating for output which is:
    - (1) Less than 500 horsepower; or
- (2) Equal to or greater than 500 horsepower if the engine operates less than 100 hours per calendar year.
  - (g) A stationary internal combustion engine that has a rating for output which is:
    - (1) Less than 250 horsepower; or
- (2) Equal to or greater than 250 horsepower if the engine operates less than 100 hours per calendar year.
- (h) An emergency generator. Except as otherwise provided in this paragraph, an emergency generator qualifies as an insignificant activity pursuant to this paragraph only if the emergency generator is an internal combustion engine that is used to generate electrical power to maintain essential operations during unplanned electrical power outages. An emergency generator that is owned or operated by a Class II source and whose potential to emit is calculated on the basis of less than 500 hours of operation does not qualify as an insignificant activity.
- 3. If an emission unit is considered an insignificant activity and is subject to a limitation on its hours of operation pursuant to subsection 2, the owner or operator of the emission unit shall maintain an operating log of the hours of operation of the emission unit. The operating log must be maintained at the site of the emission unit and made available to the director upon his request. The owner or operator shall retain the operating log for not less than 5 years.
- 4. The director may, upon written request and a satisfactory demonstration by an applicant, approve an emission unit as an insignificant activity if the emission unit is not otherwise subject to another specific applicable requirement, including, without limitation, any requirement or standard set forth in 40 C.F.R. Part 60, 61 or 63. To be approved as an insignificant activity, an emission unit must meet the following criteria:
- (a) The operation of the emission unit, not considering controls or limits on production, type of materials processed, combusted or stored, or hours of operation, will not result in:
- (1) Emissions of a hazardous air pollutant that exceed 1 pound per hour or 1,000 pounds per year, as appropriate;
  - (2) Emissions of regulated air pollutants that exceed 4,000 pounds per year;
- (3) Emissions of regulated air pollutants that exceed any other limitation on emissions pursuant to any other applicable requirement; or

- (4) Emissions of regulated air pollutants that adversely impact public health or safety, or exceed any ambient air quality standards; and
- (b) The emissions from the emission unit are not relied on to avoid any other applicable requirements.

If there are multiple emission units, the director may, after considering the impact of the combined emissions of multiple emission units, determine whether to approve one or more of the specific emission units as an insignificant activity.

- 5. Except as otherwise provided in NAC 445B.094, emissions from insignificant activities, as determined pursuant to this section, must be included in any determination of whether a stationary source is a major source.
- 6. A stationary source is not required to obtain an operating permit pursuant to NAC 445B.001 to 445B.3485, inclusive, for any emission unit determined to be an insignificant activity in accordance with this section, as long as the stationary source is not otherwise subject to any other requirement to obtain an operating permit under Title V of the Act. Such an exclusion from the requirements relating to permitting is not an exclusion or exemption from any other requirement set forth in NAC 445B.001 to 445B.3485, inclusive, relating to the operation of the emission unit determined to be an insignificant activity.
- 7. A stationary source which consists solely of insignificant activities as determined pursuant to this section and which is not otherwise subject to any other requirement to obtain an operating permit under Title V of the Act is not required to obtain an operating permit to operate as a stationary source. Such an exclusion from the requirements relating to permitting is not an exclusion or exemption from any other requirement set forth in NAC 445B.001 to 445B.3485, inclusive, relating to the operation of the stationary source or any insignificant activity that is a part of the stationary source.

[Environmental Comm'n, Air Quality Reg. § 3.1.8, eff. 11-7-75]—(NAC A 10-22-87; 12-8-89; 9-19-90; 11-23-92; 12-13-93, eff. 11-15-94; 3-29-94, eff. 11-15-94; 10-30-95; R117-00, 6-1-2001)

## **ATTACHMENT 3**

# LIST OF TRIVIAL ACTIVITIES

The following types of activities and emission units may be presumptively omitted from Class I applications. Certain of these listed activities include qualifying statements intended to exclude many similar activities. Trivial activities are emission units without specific applicable requirements under Title V of the Clean Air Act Amendments of 1990 and with extremely small emissions. There are also no applicable State Implementation Plan requirements for these activities. As of June 12, 1998, cooling towers have been removed from this list and must be treated as a permitted item or insignificant activity.

- \$ Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources
- \$ Air-conditioning units used for human comfort that do not have applicable requirements under Title VI of the CAA
- \$ Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing/industrial or commercial process
- \$ Non-commercial food preparation
- \$ Consumer use of office equipment and products, not including printers or businesses primarily involved in photographic reproduction
- \$ Janitorial services and consumer use of janitorial products
- \$ Internal combustion engines used for landscaping purposes
- \$ \$ \$ \$ \$ \$ Laundry activities, except for dry-cleaning and steam boilers
- Bathroom/toilet vent emissions 1
- Emergency (backup) electrical generators at residential locations
- Tobacco smoking rooms and areas
- Blacksmith forges
- Facility maintenance and upkeep activities (e.g., groundskeeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification<sup>1</sup>
- \$ Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or degreasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification
- \$ Portable electrical generators that can be moved by hand from one location to another. (NOTE: "Moved by hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device)
- \$ Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic
- \$ Brazing, soldering and welding equipment, and cutting torches related to manufacturing and construction activities that do not result in emission of HAP metals<sup>1</sup>

<sup>&</sup>lt;sup>1</sup>Brazing, soldering and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are more appropriate for treatment as insignificant activities based on size or production level thresholds.

- \$ Air compressors and pneumatically operated equipment, including hand tools
- \$ Batteries and battery charging stations, except at battery manufacturing plants
- \$ Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized
- \$ Equipment used to mix and package, soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized
- \$ Drop hammers or hydraulic presses for forging or metalworking
- \$ Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment
- \$ Vents from continuous emissions monitors and other analyzers
- \$ Natural gas pressure regulator vents, excluding venting at oil and gas production facilities
- \$ Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation
- \$ Equipment used for surface coating, painting, dipping or spraying operations, except those that will emit VOC or HAP
- \$ CO<sub>2</sub> lasers, used only on metals and other materials which do not emit HAP in the process
- \$ Consumer use of paper trimmers/binders
- \$ Drying ovens and autoclaves, electric or steam heated, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam
- \$ Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants
- \$ Laser trimmers using dust collection to prevent fugitive emissions
- \$ Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents<sup>2</sup>
- \$ Routine calibration and maintenance of laboratory equipment or other analytical
- \$ Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis
- \$ Hydraulic and hydrostatic testing equipment
- \$ Environmental chambers not using hazardous air pollutant (HAP) gases
- \$ Shock chambers
- Humidity chambers
- Solar simulators
- \$ \$ \$ Fugitive emissions related to movement of passenger vehicles, provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted

<sup>&</sup>lt;sup>2</sup> Many lab fume hoods or vents might qualify for treatment as insignificant or be grouped together for purposes of description.

- \$ Process water filtration systems and demineralizers
- \$ Demineralized water tanks and demineralizer vents
- \$ Boiler water treatment operations, not including cooling towers
- Oxygen scavenging (de-aeration) of water
- \$ \$ \$ Ozone generators
- Fire suppression systems
- \$ Emergency road flares
- Steam vents and safety relief valves
- Steam leaks
- \$ \$ \$ Steam cleaning operations
- \$ Steam sterilizers
- Oxygen plant, not including fuel burning equipment
- Lime slakers
- \$ \$ \$ Ro-taps (bench scale)
- \$ Riffles
- \$ Ventilated benches (sample preparation area)
- \$ Underground mining activities (including ventilation shafts)
- \$ Aspirating devices for, and venting of, aerosol cans, butane or natural gas cylinders, propane gas cylinders and ether cylinders with a capacity of less than 1 gallon
- \$ Vacuum truck related activities
- \$ Non-commercial experimental and analytical laboratory equipment which are bench scale in nature
- \$ Use of pesticides, fumigants and herbicides
- \$ Equipment using water, soap, detergents, or a suspension of abrasives in water for purposes of cleaning or finishing
- Pump or motor oil reservoirs \$
- \$ Electric motors
- \$ Soil gas sampling
- \$ Continuous emissions monitoring system calibration gases
- \$ Water treatment or storage or cooling systems for process water (specify any water additives), not including cooling towers
- \$ Chemical storage associated with water and wastewater treatment
- \$ Aerosol can usage
- \$ Plastic pipe and liner welding
- \$ Acetylene, butane and propane torches
- \$ Equipment used exclusively for portable steam cleaning
- \$ Caulking operations which are not part of a production process
- \$ High voltage induced corona
- \$ Production of hot/chilled water for on-site use not related to an industrial process
- \$ Filter draining
- \$ General vehicle maintenance and servicing activities at the source
- \$ Station transformers
- \$ Circuit breakers (non-PCB oil filled)

- **\$** Storage cabinets for flammable products
- \$ Fugitive emissions from landfill operations (provided the landfill is not subject to any federal applicable requirement)
- \$ Automotive repair shop activities
- \$ Stormwater ponds \$ Blast cleaning equi
- **\$** Blast cleaning equipment using a suspension of abrasive in water and any exhaust system or collector serving them exclusively
- \$ Motor vehicle wash areas, etc.
- \$ Open burning (provided all reporting and permitting requirements which apply are followed)
- **\$** Fire fighting activities and training conducted at the source in preparation for fighting fires
- \$ Open burning activities in accordance with the NAC
- \$ Flares used to indicate danger
- **\$** Pressure relief valves
- \$ Natural gas pressure regulator vents, excluding venting at oil and gas production facilities

## **ATTACHMENT 4**

# LIST OF HAZARDOUS AIR POLLUTANTS

### The original list of hazardous air pollutants as follows:

CAS Number	Chemical Name
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	2-Acetylaminofluorene
107028	Acrolein
79061	Acrylamide
79107	Acrylic acid
107131	Acrylonitrile
107051	Allyl chloride
92671	4-Aminobiphenyl
62533	Aniline
90040	o-Anisidine
1332214	Asbestos
71432	Benzene (including benzene from gasoline)
92875	Benzidine
98077	Benzotrichloride
100447	Benzyl chloride
92524	Biphenyl
117817	Bis(2-ethylhexyl)phthalate (DEHP)
542881	Bis(chloromethyl)ether
75252	Bromoform
106990	1,3-Butadiene
156627	Calcium cyanamide
105602	Caprolactam (See Modification)
133062	Captan
63252	Carbaryl
75150	Carbon disulfide
56235	Carbon tetrachloride
463581	Carbonyl sulfide
120809	Catechol
133904	Chloramben
57749	Chlordane
7782505	Chlorine
79118	Chloroacetic acid
532274	2-Chloroacetophenone
108907	Chlorobenzene
510156	Chlorobenzilate
67663	Chloroform
107302	Chloromethyl methyl ether
126998	Chloroprene
1319773	Cresols/Cresylic acid (isomers and mixture)
95487	o-Cresol
108394	m-Cresol
106445	p-Cresol
98828	Cumene
94757	2,4-D, salts and esters
3547044	DDE (See technical note)
334883	Diazomethane
132649	Dibenzofurans (See technical note)
96128	1,2-Dibromo -3-chloropropane

84742	Dibutylphthalate
106467	1,4-Dichlorobenzene(p)
91941	3,3-Dichlorobenzidene(See technical note)
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)
542756	1,3-Dichloropropene
62737	Dichlorvos
111422	Diethanolamine
121697	N,N-Diethyl aniline (N,N-Dimethylaniline)(See technical note)
64675	Diethyl sulfate
119904	3,3-Dimethoxybenzidine(See technical note)
60117	Dimethyl aminoazobenzene
119937	3,3'-Dimethyl benzidine(See technical note)
79447	Dimethyl carbamoyl chloride (See technical note)
68122	Dimethyl formamide
57147	1,1-Dimethyl hydrazine(See technical note)
131113	Dimethyl phthalate
77781	Dimethyl sulfate
534521	4,6-Dinitro-o-cresol, and salts
51285	2,4-Dinitrophenol
121142	2,4-Dinitrotoluene
123911	1,4-Dioxane (1,4-Diethyleneoxide)
122667	1,2-Diphenylhydrazine
106898	Epichlorohydrin (l-Chloro-2,3-epoxypropane)
106887	1,2-Epoxybutane
140885	Ethyl acrylate
100414	Ethyl benzene(See technical note)
51796	Ethyl carbamate (Urethane)
75003	Ethyl chloride (Chloroethane)
106934	Ethylene dibromide (Dibromethane)
107062	Ethylene dichloride (1,2-Dichloroethane)
107211	Ethylene glycol
151564	Ethylene imine (Aziridine)
75218	Ethylene oxide
96457	Ethylene thiourea
75343	Ethylidene dichloride (1,1-Dichloroethane)
50000	Formaldehyde
76448	Heptachlor
118741	Hexachlorobenzene
87683	Hexachlorobutadiene
77474	Hexachlorocyclopentadiene
67721	Hexachloroethane
822060	Hexamethylene-1,6-diisocyanate
680319	Hexamethylphosphoramide
110543	Hexane
302012	Hydrazine
7647010	Hydrochloric acid(See technical note)
7664393	Hydrogen fluoride (Hydrofluoric acid)
7783064	Hydrogen sulfide(See Modification)
123319	Hydroquinone
78591 50000	Isophorone
58899	Lindane (all isomers)
108316	Maleic anhydride
67561 72435	Methanol Methanol
72435	Methoxychlor

74839 Methyl bromide (Bromomethane) 74873 Methyl chloride (Chloromethane)

71556 Methyl chloroform (1,1,1-Trichloroethane)

78933 Methyl ethyl ketone (2-Butanone)

Methyl hydrazine

74884 Methyl iodide (Iodomethane) 108101 Methyl is obutyl ketone (Hexone)

624839 Methyl isocyanate 80626 Methyl methacrylate

Methyl tert butyl ether(See technical note)

101144 4,4-Methylene bis(2-chloroaniline)(See technical note)

75092 Methylene chloride (Dichloromethane) 101688 Methylene diphenyl diisocyanate (MDI)

101779 4,4¬-Methylenedianiline

91203 Naphthalene 98953 Nitrobenzene 92933 4-Nitrobiphenyl 100027 4-Nitrophenol 79469 2-Nitropropane

684935 N-Nitroso-N-methylurea 62759 N-Nitrosodimethylamine 59892 N-Nitrosomorpholine

56382 Parathion

82688 Pentachloronitrobenzene (Quintobenzene)

87865 Pentachlorophenol

108952 Phenol

p-Phenylenediamine

75445 Phosgene 7803512 Phosphine

7723140 Phosphorus (See technical note)

85449 Phthalic anhydride

1336363 Polychlorinated biphenyls (Aroclors)

1120714 1,3-Propane sultone 57578 beta-Propiolactone 123386 Propionaldehyde 114261 Propoxur (Baygon)

78875 Propylene dichloride (1,2-Dichloropropane)

75569 Propylene oxide

75558 1,2-Propylenimine (2-Methyl aziridine)

91225 Quinoline 106514 Quinone 100425 Styrene 96093 Styrene oxide

1746016 2,3,7,8-Tetrachlorodibenzo-p-dioxin

79345 1,1,2,2-Tetrachloroethane

127184 Tetrachloroethylene (Perchloroethylene)

7550450 Titanium tetrachloride

108883 Toluene

95807 2,4-Toluene diamine 584849 2,4-Toluene diisocyanate

95534 o-Toluidine

8001352 Toxaphene (chlorinated camphene)

120821 1,2,4-Trichlorobenzene 79005 1,1,2-Trichloroethane 79016 Trichloroethylene 95954 2,4,5-Trichlorophenol 88062 2,4,6-Trichlorophenol

Triethylamine 121448 Trifluralin 1582098

540841 2,2,4-Trimethylpentane

108054 Vinyl acetate Vinyl bromide 593602 75014 Vinyl chloride

75354 Vinylidene chloride (1, 1-Dichloroethylene)

1330207 Xylenes (isomers and mixture) 95476 o-Xylenes (See technical note) m-Xylenes (See technical note) 108383 10642 p-Xylenes (See technical note)

**Antimony Compounds** 

Arsenic Compounds (inorganic including arsine)

Beryllium Compounds Cadmium Compounds Chromium Compounds Cobalt Compounds Coke Oven Emissions Cyanide Compounds1 Glycol ethers<sup>2</sup> Lead Compounds Manganese Compounds

Mercury Compounds

Fine mineral fibers <sup>3</sup> (See technical note)

Nickel Compounds

Polycylic Organic Matter <sup>4</sup> (See technical note)

Radionuclides (including radon)<sup>5</sup>

Selenium Compounds

NOTE: For all listings above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

n = 1, 2, or 3

R = alkyl or aryl groups

R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH2CH)n-OH. Polymers are excluded from the glycol category.(See Modification)

<sup>&</sup>lt;sup>1</sup> X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or Ca(CN)2

<sup>&</sup>lt;sup>2</sup> Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n -OR' where

<sup>&</sup>lt;sup>3</sup> Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

<sup>&</sup>lt;sup>4</sup> Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 1/2 C.

<sup>&</sup>lt;sup>5</sup> A type of atom which spontaneously undergoes radioactive decay.

#### **Modifications To The 112(b)1 Hazardous Air Pollutants**

#### **Authority for modifications:**

Section 112 of the Act contains a mandate for U.S. EPA to evaluate and control emissions of hazardous air pollutants. Section 112(b)(1) includes an initial list of hazardous air pollutants that is composed of specific chemical compounds and compound classes to be used to identify source categories for which the U.S. EPA will promulgate emissions standards. The listed categories are subject to emission standards subsequently developed under Section 112. The U.S. EPA must periodically review the list of hazardous air pollutants and, where appropriate, revise this list by rule. In addition, any person may petition U.S. EPA under Section 112(b)(3) to modify the list by adding or deleting one or more substances. A petitioner seeking to delete a substance must demonstrate that there are adequate data on the health and environmental effects of the substance to determine that emissions, ambient concentrations, bioaccumulation, or deposition of the substance may not reasonably be anticipated to cause any adverse effects to human health or the environment. To demonstrate the burden of proof, a petitioner must provide a detailed evaluation of the available data concerning the substance's potential adverse health and environmental effects, and estimate the potential exposures through inhalation or other routes resulting from emissions of the substance.

#### **Modifications**

#### **Glycol Ethers - Proposed**

On January 12, 1999 (FR64:1780), U.S. EPA proposed to modify the definition of glycol ethers to exclude surfactant alcohol ethoxylates and their derivatives (SAED). This proposal was based on U.S. EPA's finding that emissions, ambient concentrations, bioaccumulation, or deposition of SAED may not reasonably be anticipated to cause adverse human health or environmental effects. U.S. EPA also proposed to make conforming changes in the definition of glycol ethers with respect to the designation of hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The proposal reads as follows:

"The definition of the glycol ethers category of hazardous air pollutants, as established by 42 U.S.C. 7412(b)(1) includes mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n-OR' Where: n= 1, 2, or 3 R= alkyl C7 or less, or phenyl or alkyl substituted phenyl R'= H, or alkyl C7 or less, or carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate."

#### **Notices of Review**

Date	Citation	Description
06/23/99	64 FR 33453	Notice: Hazardous Air Pollutant list-Methyl Ethyl Ketone (MEK); receipt of a complete petition to delist

#### Caprolactam

On July 19, 1993, U.S. EPA received a petition from AlliedSignal, Inc., BASF Corporation, and DSM Chemicals North America, Inc. to delete caprolactam (CAS No. 105-60-2) from the hazardous air pollutant list in Section 112(b)(1), 42 U.S.C., Section 7412(b)(1). A Notice of Recipt was published (58FR45081, August 26, 1993) noting that the data filed were adequate to support decision making. After a comprehensive review of the data submitted, the EPA published a proposal to delist caprolactam (60FR48081, September 18, 1995). In order to help address public concern, on March 13, 1995, U.S. EPA executed two detailed agreements with AlliedSignal concerning the Irmo, South Carolina manufacturing facility and another facility located in Chesterfield, Virginia, copies of which are included in the public docket for this rulemaking. AlliedSignal agreed that, if caprolactam was delisted pursuant to the proposal, AlliedSignal would install emissions controls which EPA believed would be equivalent to the controls which would have been required had EPA issued a standard to control these sources under Section 112. The agreed emissions controls are incorporated in federally enforceable operating permits for the affected facilities, and will be in place years earlier than controls would have otherwise been required. In addition,

AlliedSignal has agreed to establish a citizen advisory panel concerning the Irmo facility in order to improve communications with the community and to assure that citizens have an ongoing role in implementation of the agreed emission reductions. The public requesting a public hearing. On November 28, 1995, the EPA published a notice of public hearing and an extention of the comment period (60FR58589). After considering all public comments, the EPA published a final rule delisting caprolactam (61FR30816, June 18, 1996).

All information associated with this rule making is located in Docket Number A-94-33 at the Central Docket Section (A-130), Environmental Protection Agency, 401 M St. SW., Washington, D.C. 20460. phone 202-260-7548, fax 202-260-4400, email a-and-r-docket@epamail.epa. gov. The docket includes complete index to all papers filed in this docket, a copy of the original petition, comments submitted, and additional materials supporting the rule. A reasonable fee may be charged for copying. The docket may be inspected in person between 8:00 a.m. and 4:30 p.m. on weekdays at EPA's Central Docket Section, West Tower Lobby, Gallery 1, Waterside Mall, 401 M St., SW, Washington, D.C. 20460.

#### Hydrogen Sulfide

A clerical error led to the inadvertent addition of hydrogen sulfide to the Section 112(b) list of Hazardous Air Pollutants. However, a Joint Resolution to remove hydrogen sulfide from the Section 112(b)(1) list was passed by the Senate on August 1, 1991 (Congressional Record page S11799), and the House of Representatives on November 25, 1991 (Congressional Record pages H11217-H11219). The Joint Resolution was approved by the President on December 4, 1991. Hydrogen Sulfide is included in Section 112(r) and is subject to the accidental release provisions. A study (see below) was required under Section 112(n)(5).

Hydrogen Sulfide Air Emissions Associated with the Extraction of Oil and Natural Gas, EPA-453/R-93-045, NTIS (publication # is PB94-131224, \$36.50 hard copy, \$17.50 microfiche).

National Technical Information Services (NTIS) 5285 Port Royal Road Springfield, VA 22161 703-487-4650 800-426-4791

703-487-4807 8:30-5:30 EST M-F

## **ATTACHMENT 5**

# LIST OF DEFAULT CONTROL EFFICIENCY RATINGS

### Nevada Bureau of Air Pollution Control Emission Control Technology - Control Efficiency Ratings

Emission Control Technology	Control Efficiency Rating
Water Sprays	75%
Fogging Water Sprays	85%
Fogging Water Sprays with Surfactant	90%
Pneumatic Fogging Water Sprays	95%
Cyclones	*80%
High-Efficiency Cyclones	*96%
Multi Clones	*95%
Wet Scrubber	*85%
Venturi Scrubber	*95%
High-Efficiency Wet Scrubber	*98%
Electrostatic Precipitator	*Manufacturers Guarantee
Enclosure	50%
Filter Vent (cartridge or filter sock)	*90%
Baghouse/Dust Collector	*Manufacturers Guarantee/0.02 grains/dscf

Note: - The guaranteed emissions <u>outlet</u> (outlet grain loading) information from the pollution control device manufacturer should be utilized to derive appropriate emissions limitations rather than the percent reduction ratings provided above. The percent reduction rating provided by the pollution control device manufacturer is based on the difference between the amount of pollutant entering the control versus the amount of pollutant exiting the control. If the percent reduction rating provided above is applied to emission factors (such as those provided in AP-42) that are different from those used by the pollution control device manufacturer in the design of the control, excessively low, and in many cases un-achievable emissions levels may be calculated.